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ABSTRACT

This report examines occupational education in a New York City Borough with the purpose of providing an informational base for effective planning in this area. The study reviews population trends in the Bronx in general and in its high school population in particular. The types of occupational education available in the high schools of the Borough are delineated. Employment opportunities are also examined with specific reference to the availability and student use of matching training programs in the high schools. Included are tables indicating ethnic distribution of the population and student enrollments in different types of occupational education programs. (Author/WP)

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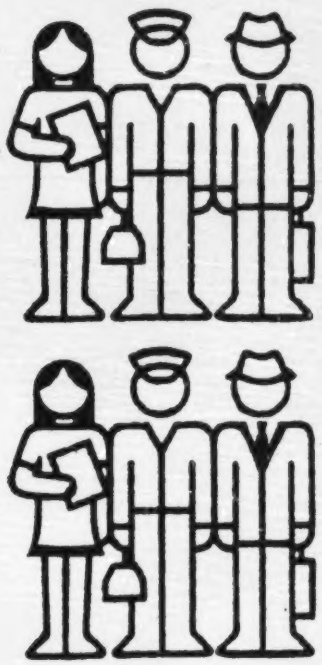

A Survey of

The Occupational Education Delivery System in the Borough of The Bronx

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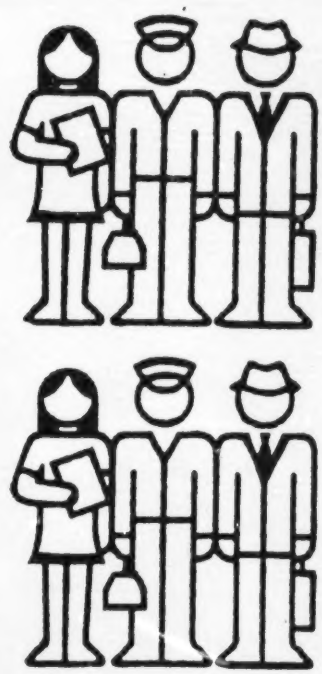

CENTER FOR
CAREER AND OCCUPATIONAL EDUCATION

Board of Education of the City of New York
Division of Educational Curriculum and Instruction

A SURVEY OF

THE OCCUPATIONAL EDUCATION DELIVERY SYSTEM

in the

BOROUGH OF THE BRONX

May, 1979

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Acknowledgements

The surveys of each of the five boroughs were undertaken in recognition of the distinctiveness and individuality of the populations, the geography, and labor market needs of each of the boroughs. The size and diversity of New York City is such that a borough-by-borough data base is a necessity for the development of City-wide needs base and ultimately a Regional Plan.

The Borough surveys were initiated and implemented by the Unit for Planning, Evaluation and Research. Major responsibility for the development of the five documents was borne by Leonard Bozza and Eileen Pollack.

Other members of the Unit who contributed to the data collection and interpretation were Richard Halperin, Mildred Davison and William Spier. Ms. Mary Bay was responsible for the typing and production of the documents. She was assisted by Ms. Bessie Jones.

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INTRODUCTION

This survey of the occupational education delivery services represents an initial step in the development of a Borough-wide plan. The surveys of the boroughs,will provide a solid informational base for effective borough-wide and city-wide planning to insure networks of updated and cost effective career and occupational education services.

Elements which have been included in this study include: a review of population trends in the entire Borough and in the High School population in particular for the period 1976 to present; population flow, (migration and out migration) special geographic features; transportation facilities; labor market information specific to the borough; assessments of the scope and nature of local business. An in-depth study of present facility and training resources has been made. This study provides a basis for assessing the potential training resources within the present school structure, as well as a detailed outline of the present scope of services.

Travel patterns have been studied as a bases for expanding training opportunities to students through more intensive use of quality facilities in the Borough.

Overall, an attempt has been made to assess the adequacy of present training resources, in relation to student and labor market needs. While a precise correspondence between training output and job market openings is neither practical, nor always reliable, a serious attempt has been made to perceive training need within the best available job market information.

GENERAL POPULATION TRENDS - BOROUGH OF THE BRONX

As of 1975, there were approximately 1,471,701 people residing in the Borough of the Bronx. This represents an increase of 20,000 since 1950. Migration into and out of the Borough has followed much the same pattern as experienced by Brooklyn - the Black population has increased threefold since 1950, while the white population has decreased by 31%. The expansion of housing units in Queens since 1950, the spread of industry in the metropolitan area, and the deterioration of neighborhood infrastructure, can all be considered as major reasons for the racial changes that have occured in the Borough since 1950.

TABLE I: ETHNIC DISTRIBUTION of the POPULATION of the BRONX--1950-1970

A) BRONX POPULATION(1950, 1960, 1970)

Year	Minority	%	"Other"	%	TOTAL
1950	158,654	10.93	1,292,623	89.07	1,451,277
1960	338,596	23.76	1,086,219	76.24	1,424,815
1970	666,405	45.28	805,285	54.72	1,471,690

B) PERCENT CHANGE IN THE BRONX

	Minority	"Other"	TOTAL
1950-1970	+320.04	-37.70	+1.41

TABLE II: ETHNIC DISTRIBUTION of the CITYWIDE POPULATION--1950-1970

A) CITYWIDE POPULATION (1950, 1960, 1970)

Year	Minority	%	"Other"	%	TOTAL
1950	997,731	12.64	6,894,226	87.36	7,891,957
1960	1,682,901	21.63	6,099,083	78.37	7,781,984
1970	2,517,562	31.89	5,377,299	68.11	7,894,861

B) PERCENT CHANGE CITYWIDE

	Minority	"Other	TOTAL
1950-1970	+152.33	-22.00	+0.04

Bronx Public High School Population

Since 1976, the overall population of the Bronx public high schools has decreased by 4.75% from 59,004 to 56,200 students. Population in the academic/comprehensive high schools decreased by 4.63%, while the vocational high school population decreased by 11.89%.

In 1976, the vocational high school enrollment accounted for 12.06% of the total Bronx high school population; by 1978, however, it accounted for 11.16% of the total.

The minority population in the 13 academic/comprehensive high schools increased from 78.31% in 1976 to 81.13% in 1978; an increase of 2.82%. At present, there are 9 high schools that have minority population greater than 92%.

Bronx Private High Schools

There are 24 private schools in the borough of the Bronx which served a total of 16,287 students in grades 9 through 12 in the 1978-79 school year. This population, if added to the 54,973 enrolled in the academic/comprehensive and vocational high schools and the 1,227 in the independent alternative and special schools, represents 22.47% of all students attending Bronx high schools.

TABLE III A

ETHNIC DISTRIBUTION IN BRONX HIGH SCHOOLS
October 1976

	Minority	%	Other	%	Total
Morris	3,185	99.75	8	0.25	3,193
H. Lehman	1,755	42.78	2,347	57.22	4,102
Wm. H. Taft	4,939	99.12	44	0.88	4,983
C. Columbus	1,470	38.67	2,331	61.33	3,801
J. Monroe	3,277	98.41	53	1.59	3,330
E. Childs	3,128	86.31	496	13.69	3,624
Walton	1,962	95.57	91	4.43	2,053
T. Roosevelt	4,928	96.78	164	3.22	5,092
D. Clinton	4,534	94.87	245	5.13	4,779
Bx. H.S. of Science	1,082	31.69	2,332	68.31	3,414
A. Stevenson	4,330	95.37	210	4.63	4,540
H.S. Truman	2,069	62.66	1,233	37.34	3,302
J.F. Kennedy	3,329	68.60	1,524	31.40	4,853
Total Acad./Comp.	39,988	78.31	11,078	21.69	51,066
A.E. Smith	1,939	96.42	72	3.58	2,011
J. Addams	1,501	99.27	11	0.73	1,512
S. Gompers	1,546	98.03	31	1.97	1,577
G. Dodge	1,878	93.15	138	6.85	2,016
Total Voc.	6,864	96.46	252	3.54	7,116
Aux. Services	751	99.34	5	0.66	756
Spec. Schools	66	100.00	0	0	66
GRAND TOTAL	47,669	80.79	11,335	19.21	59,004

TABLE III B

ETHNIC DISTRIBUTION IN BRONX HIGH SCHOOLS
October 1977

	Minority	%	Other	%	Total
Morris	2,918	99.90	3	0.10	2,921
H. Lehman	1,804	45.75	2,139	54.25	3,943
Wm. H. Taft	4,745	99.21	38	0.79	4,783
C. Columbus	1,207	35.70	2,174	64.30	3,381
James Monroe	2,980	99.40	18	0.60	2,998
Evander Childs	3,321	91.84	295	8.16	3,616
Walton	2,525	95.57	117	4.43	2,642
T. Roosevelt	4,683	96.86	152	3.14	4,835
DeWitt Clinton	4,457	96.22	175	3.78	4,632
Bx. H.S. of Science	1,161	34.36	2,218	65.64	3,379
A. Stevenson	4,563	96.57	162	3.43	4,725
Harry S. Truman	2,161	66.05	1,111	33.95	3,272
South Bronx*	314	99.37	2	0.63	316
John F. Kennedy	3,380	69.81	1,462	30.19	4,842
Total Acad./Comp.	40,219	79.98	10,066	20.02	50,285
Vocational H.S.'s					
Alfred E. Smith	1,940	96.76	65	3.24	2,005
Jane Addams	1,571	99.75	4	0.25	1,575
Samuel Gompers	1,392	98.93	15	1.07	1,407
Grace H. Dodge	1,860	94.27	113	5.73	1,973
Total Vocational	6,763	97.17	197	2.83	6,960
Auxiliary	789	99.62	3	0.38	792
Special Schools	141	100.00	0	0	141
GRAND TOTAL	47,912	82.35	10,266	17.65	58,178

* Opened in September, 1977

TABLE III C

ETHNIC DISTRIBUTION IN BRONX HIGH SCHOOLS
October 1978

	Minority	%	Other	%	Total
Morris	2,846	99.89	3	0.11	2,849
H.H. Lehman	1,516	44.48	1,892	55.52	3,408
Wm. H. Taft	3,878	99.74	10	0.26	3,888
C. Columbus	1,229	39.07	1,917	60.93	3,146
J. Monroe	2,763	99.75	7	0.25	2,770
E. Childs	3,471	92.76	271	7.24	3,742
Walton	3,307	96.39	124	3.61	3,431
T. Roosevelt	4,317	96.23	169	3.77	4,486
D. Clinton	4,111	97.39	110	2.61	4,221
Bx. H.S. of Science	1,167	35.15	2,153	64.85	3,320
A.E. Stevenson	4,299	96.37	162	3.63	4,461
Harry S. Truman	2,319	69.00	1,042	31.00	3,361
South Bronx	789	99.87	1	0.13	790
J.F. Kennedy	3,503	72.53	1,327	27.47	4,830
Total Acad./Comp.	39,515	81.13	9,188	18.87	48,703
A.E. Smith	1,716	97.28	48	2.72	1,764
J. Addams	1,530	99.74	4	0.26	1,534
S. Gompers	1,005	98.43	16	1.57	1,021
G. Dodge	1,849	94.82	102	5.18	1,951
Total Voc.	6,100	97.29	170	2.71	6,270
Aux. Services	1,073	97.19	31	2.81	1,104
Special Schools	123	100.00	0	0	123
GRAND TOTAL	46,811	83.29	9,389	16.71	56,200

OCCUPATIONAL EDUCATION SERVICES

The delivery system for Occupational Education in the borough of the Bronx consists of programs designed to provide various levels of skills training to high school students, out-of-school youth and adults. Day high school programs are offered in fourteen academic/comprehensive and four high schools are given the opportunity to receive training in select areas through the Shared Instruction Program or the After School Occupational Skills Program.

DAY HIGH SCHOOLS

In the 1978-79 school year, a total of 56,200 students enrolled in Bronx high schools, fourteen academic/comprehensive and four vocational high schools served 54,973 students and 1,227 students were served by special schools and auxiliary services.

Training in at least one of the seven occupational clusters (see Table IV) was received by 15,750 students, (28% of the total secondary school population.)

The academic/comprehensive schools provided the occupational training to two-thirds of those students. Of these 10,805 students, 80% (8,250) were enrolled in the Business and Distributive Education cluster.

Vocational schools supplied the training to 4,835 students of which number almost 50% were enrolled in the Trade/Industry cluster.

There is considerable variation among the fourteen Academic/Comprehensive High Schools with respect to the percentages receiving occupational training. This ranges from 2% to 32%. The total number 10,805 receiving occupational training represents 22% of the 48,703 students enrolled in those fourteen schools.

VOCATIONAL SCHOOLS

There were 6,270 students enrolled in the four vocational high schools in the Bronx in 1978. This represented over 11% of the total borough secondary school population.

Student registers at Samuel Gompers Vocational High School have fallen perilously. In order to provide new incentives for students as a means of bolstering enrollments plans have been drawn to convert Gompers into a data processing magnet school, offering courses in data processing/business skills and computer maintenance and repair. The sequence of courses will be offered to junior high school students as well as those in the Shared Instruction Program, and is intended also to relieve the excess of applicants to Norman Thomas and Murry Bergtraum High Schools in Manhattan.

COMPREHENSIVE HIGH SCHOOLS

The Bronx has a number of schools that can be considered comprehensive based on shop facilities. Among these are Herbert Lehman, Adlai Stevenson, and Harry S. Truman High Schools.

While these schools do offer a variety of occupational courses the shop facilities in the schools are not utilized to provide instruction in trade/industry subjects. Together, these three schools served zero students in trade/industry subjects during fall 1978. They did however, provide "occupational" instruction to 745 students in the Industrial Arts and Home Economics areas.

The shop facilities of these schools were primarily utilized to provide 5 pd/wk Industrial Arts and Home Economics instruction to 1,487 students during the fall 1978.

Inadequate staffing, the absence of course standardization and inflexible student programming contributes to the limited utilization of shop facilities in the delivery of trade/industry and technical subjects on an occupational (10 pd/wk) level.

The problem of student programming appeared to be the largest obstacle in developing quality occupational programs in these comprehensive high schools. Students are not identified and programmed through a logical sequence of related subjects, even when they express an interest in doing so. In addition, few courses are offered for double periods and none are offered for triple periods as they would be in a vocational high school. Flexibility to enable the programming of double and triple periods for vocational students is possible under present State and City requirements for graduation. However, none of the Bronx comprehensive high schools has elected to utilize this alternative to develop occupational concentrations in the trade/industry and technical areas. Students are at present not being scheduled for multiple periods of instruction because they are compelled by the school to take subjects in excess of those actually needed for graduation.

There is little doubt that more students could be better served by these facilities with improved staffing, standardized course curricula, sequencing, and student programming which takes advantage of the flexibility allowed by State and City diploma requirements.

Interest Surveys

In 1976 interest surveys were conducted among the following five Bronx populations:

Junior High School students
High School students
Parents of secondary school students
Long term absentee students
Participants in the Bronx Career Campus

The results indicated that the following occupations were consistently selected as areas of interest by respondents:

Typing	Data Processing
Child Care	Photography
Medical Assistant	Stenography
Electronics	Hospital Assistant
Bookkeeping	Automotive Repairs
Practical Nursing	Electrical Installation

The following are representative of the questions to which students were asked to respond:

1) Which occupational courses do you want to take?
2) Which occupational courses have you taken or are now taking?
3) Which occupational course have you applied for?

Student responses may be summarized as follows:

1) Many students who apply for specific occupational programs have never been served. Example: 144 students questioned had applied for an automotive program but only 88 had taken or were presently taking such a program.

2) The number of students wanting to take specific occupational courses was consistently and overwhelmingly greater than those indicating that they have applied for such a program. Example: 243 students indicated a desire to take an electronics course but only 195 students had bothered to apply for such a program.

   This situation is most likely produced by student lack of direction, and unawareness of courses and application procedures. In many cases there appears to be a difference between the student's preferences and the student's perception of what is achieveable.

Overall, the responses to these questions indicate a substantial demand for occupational training which the present delivery system for occupational education in the Bronx is unable to meet.

The responses further indicate a population, unmeasured before this, that desires occupational training but has failed to apply. The size of this population also indicates the clear need for a more intensive and expanded career guidance system.

SHARED INSTRUCTION PROGRAM

The Shared Instruction Program provides opportunities for students to receive occupational training in areas not available in their home schools. Students travel to and take advantage of an instructional program offered at another high school during the regular school day.

At present, one academic (Walton HS) and all four Bronx vocational schools are serving students on a shared time basis. Together these schools served 135 in the fall of 1978. One hundred twenty-nine (129) or 93% of the SIP students came from other Bronx high schools. The course offerings were distributed as follows:

Auto. Mech. - 58 to A.E. Smith	Child Care - 5 to Walton
Elect. Inst. & Pract. - 21 to S. Gompers	Cosmetology - 20 to J. Addams
	31 to G. Dodge

Ninety-eight (98) Bronx students traveled out of the borough to receive instruction; 88 to Norman Thomas HS in Manhattan and ten to Aviation HS in Queens.

AFTER SCHOOL OCCUPATIONAL SKILLS PROGRAM (ASOSP)

The After School Occupational Skills Program provides opportunities, for "disadvantaged" high school students to acquire entry-level skills in select occupational areas. Instruction is offered to students after the regular school day, on Saturdays, and/or in the summer on an open entry-open exit basis.

The ASOSP served 546 Bronx students during the summer of 1978 and 834 during the fall term. No eligible students were rejected from the program. However, general population is limited to the "disadvantaged".

Schools hosting after school programs in the 1978-79 school year are: A. Stevenson, H. Lehman, Morris, J. Monroe, G. Dodge Vocational, and J. Addams Vocational High Schools. Of the number of students who took courses via ASOSP in the summer of 1978, 82% were enrolled in Business and Distributive Education, and 72% were similarly enrolled in the fall of 1978.

With 72% of the borough's high school students not enrolled in any type of occupational education courses, the need for alternative programs such as ASOSP and SIP is considerable.

TABLE IV

OCCUPATIONAL ENROLLMENTS* IN BRONX HIGH SCHOOLS

(by Cluster/School)

October 1978

School	Ag.	Business & Dist. Ed.**	Health	Home Economics	Industrial Arts	Trade/ Industry	Tech.	TOTAL
Morris		1457 (830)	75					905
H. Lehman		1269 (720)	56	33	157			966
W.H. Taft		1689 (960)	274					1234
C. Columbus		1511 (860)						860
J. Monroe	174	1022 (580)	95					849
Evander Childs		1479 (850)	136	110				1096
Walton		1559 (890)	60	17				967
T. Roosevelt		—	145					145
DeWitt Clinton	118	1079 (620)	150					888
Science	76	—						76
A. Stevenson		518 (290)	71	337	164			862
H.S. Truman		1394 (800)			54			854
South Bronx		—	35					35
J.F. Kennedy		1497 (850)	218					1068
Total Acad/Comp.	368	14,474(8,250)	1,315	497	375			10,805
A.E. Smith		—				998	199	1197
Jane Adams		959 (360)	488			243		1091
S. Gompers		—				856	92	948
G.H. Dodge		2527 (1230)	230			139		1599
Total Vocational		3,486(1,590)	718			2,236	291	4,835
GRAND TOTAL	368	17,960(9,840)	2,033	497	375	2,236	291	15,640
Aux. Service			110					110
			2,143					15,750

*These figures do not include Exploratory courses. See table ix

**Most Business & Distributive Education students are enrolled in more than one course. The number in parentheses represents an estimated unduplicated student count.

TABLE V

PERCENTAGE OF STUDENTS RECEIVING
OCCUPATIONAL EDUCATION
IN BRONX ACADEMIC/COMPREHENSIVE H.S.s
October 1978

School	Occ. Ed. Enrollments	Total Enrollments	Percent
Morris	905	2,849	31.77
Herbert H. Lehman	966	3,408	28.35
Wm. H. Taft	1,234	3,888	31.74
C. Colmubus	860	3,146	27.34
James Monroe	849	2,770	30.65
Evander Childs	1,096	3,742	29.29
Walton	967	3,431	28.18
T. Roosevelt	145	4,486	3.23
DeWitt Clinton	888	4,221	21.04
Bx. H.S. of Science	76	3,320	2.29
Adlai Stevenson	862	4,461	19.32
Harry S. Truman	854	3,361	25.42
South Bronx	35	790	4.43
John F. Kennedy	1,068	4,830	22.11
Total	10,805	48,703	22.19

TABLE VI

After School Occupational Skills Program
(ASOSP)
BRONX
1978

COURSE	SCHOOL	JULY	OCT.	TOTAL
Typing	A. Stevenson	37	83	120
	H. Lehman	37	52	89
	Morris	37	40	77
	J. Monroe	47	—	47
	G. Dodge	—	78	78
	J. Addams	—	41	41
Business & Office Machines	A. Stevenson	29	49	78
	J. Monroe	46	31	77
	H. Lehman	29	50	79
	Morris	30	38	68
Key Punch, Data Processing Computer Programming	H. Lehman	31	44	75
	Morris	30	29	59
Retail Sales	Morris	36	—	36
	G. Dodge	—	27	27
Office Skills & Management	A. Stevenson	27	—	27
	Morris	32	16	48
Bookkeeping, Speedwriting & Stenography	G. Dodge	—	23	23
Medical Office Practices	G. Dodge	—	34	34
Automotive Trades	A. Stevenson	29	30	59
	H. Lehman	32	44	76
Cosmetology	J. Addams	—	36	36

TABLE VI

COURSE	SCHOOL	JULY	OCT.	TOTAL
Graphic Arts/ in Plant Printing	H. Lehman	—	47	47
Photography	H. Lehman	37	—	37
Tailoring & Dressmaking	J. Monroe	—	42	42
	Totals	546	834	1,380

MATCHING TRAINING RESOURCES TO EMPLOYMENT OPPORTUNITY

AGRICULTURE

There are in the Bronx 75,000 one and two family owner-occupied dwellings, and over two hundred acres of parks, which include the New Botanical Gardens and the Bronx Zoo. Both the Gardens and the Zoo are city landmarks, visited by millions of people each year, and continually undergoing expansion and improvements with the support of public monies and private contributions. These facilities cooperate with the city schools, and are actively involved in the training of students in Agriculture and Animal Care.

Instructional Programs

Two occupational programs from the agriculture cluster are available in the Bronx high schools: Animal Care, and Ornamental Horticulture. In the fall term of the 78-79 school year, 368 students were enrolled in these programs.

Animal Care was taught at James Monroe and DeWitt Clinton High Schools to 94 and 90 students respectively. Instruction in Ornamental Horticulture was provided to 184 students by programs in James Monroe, DeWitt Clinton and Bronx High School of Science.

SUMMARY - Agriculture

James Monroe and DeWitt Clinton both offered programs in Animal Care and Ornamental Horticulture while Bronx High School of Science offered only Ornamental Horticulture. At present none of these programs is available via the Shared Instruction or After School Occupational Skills Program.

BUSINESS AND DISTRIBUTIVE EDUCATION

BUSINESS EDUCATION

Twenty-seven percent of Bronx workers are employed in clerical and related fields, and it is estimated that 65% of these clerical workers commute to Manhattan daily.

Business Education Job Market

With some exceptions, the industries in which the region specializes also tend to be the region's growth industries; communication, banking and credit, insurance, and non-profit services.[1]. Combined with government agencies, utilities and general business offices, employment in the clerical field has remained stable, and is expected to be so through 1985[2].

Citywide openings for clerical workers number about 24,000 per annum, with Bronx workers filling approximately 20% of these openings each year.

DISTRIBUTIVE EDUCATION

Retail and wholesale salesworkers hold down approximately 35,000 jobs in the Bronx; and combined with numerous related areas of distributive education, e.g. finance, office management, real estate, recreation, etc., distributive education occupational careers employ 115,000 Bronx workers.

Distributive Education Job Market

Commerce is spread throughout the Borough, with small businesses (13 to 20 employees) dominating the retail sales trade. Commercial revitalization of the South Bronx has undergone comprehensive study and planning[3]. Initial stages of Bronx, and especially South Bronx, commercial revitalization calls primarily for repair of Borough infrastructure - a necessity recognizing the private participation of merchants and banking institutions, will be commensurate with revitalization of the public sector.

Overall the Borough claims about 10,000 retail establishments with 35,000 employees, and 9,000 businesses that offer personal services and business services.

Instructional Programs

Courses in Business and Distributive Education are usually five periods per week. Students often attend more than one of these subjects per term, and therefore enrollments tend to be duplicative. The total enrollment for the Business and Distributive Education cluster (9,840) therefore does not represent the sum of the individual subject enrollments.

Bookkeeping and Accounting was offered to 5,053 students in thirteen high schools including Jane Addams and Grace Dodge Vocational High Schools, while Stenography was provided for 2,479 in the same schools.

General Office/Clerical/Typing was available in eleven schools including Grace Dodge Vocational High School and last year served a total of 6,790 students. Data Processing was taught to 407 students at five Bronx high schools.

General Merchandising was taken by 253 students in three Bronx high schools, Adlai E. Stevenson, Jane Addams and Grace Dodge. Grace Dodge offered Apparel and Accessories to 27 students in the fall term.

SUMMARY - Business and Distributive Education

While business offerings in Bronx high schools appear to be abundant, a sizeable portion of the student population did utilize alternative programs to receive instruction in the business subjects. Seventy-five percent (75%) of students enrolled in ASOSP in the Bronx were registered in business courses, while 88 additional Bronx students traveled to Manhattan to participate in the Shared Instruction Program at Norman Thomas HS.

Distributive Education programs are scarce, with limited offerings in the high schools. Together, three schools served a total of 253 students during the fall of the 1978-79 school year.

HEALTH

The Bronx has thirteen major hospitals with a total number of beds set at 5,800. Two outstanding teaching hospitals are located in the Borough, Albert Einstein Medical Center and Montefiore Hospital. Located in the South Bronx is Lincoln Community Health Center, a City hospital offering acute health care facilities and clinics to residents of the South Bronx. The hospitals, both public and

private employ 25,000 professional and non-professional workers. Growth opportunities for non-college career occupations in health has been about one per cent per annum since 1970; and separation vacancies account for six per cent turnover in employment, or 1,560 openings each year. In addition to hospitals, Borough health services also include: Medical and dental clinics, nursing care facilities for the elderly, child care health centers, physical rehabilitation facilities, family planning centers and drug and alcohol treatment facilities.

Instructional Programs

Offerings in the health career cluster are dispersed among eleven academic/comprehensive, two vocational high schools, and Auxiliary Services serving a total of 2,143 students in the fall term of the 1978-79 school year.

Introduction to Health Careers was provided to 844 students at thirteen Bronx high schools. In four of these schools, this course was the only one offered of the eleven listed in the health cluster.

Practical Nursing was offered at Jane Addams and Grace Dodge Vocational High Schools, serving 58 and 68 students respectively.

Six hundred eight (608) students received training in Health Assistant/Health Service at six Bronx high schools, with Jane Addams Vocational High School serving 378 (62%) of these.

John F. Kennedy High School provided Dental Assisting to 50 students in the fall term. It is the only school in the Borough that offered any dental related course.

Other health courses offered in the Bronx include: Medical or Bio. Lab. Technology, Medical Office Practices, Nurse Assisting, and Medical Lab Assisting.

SUMMARY - Health

Bronx high schools offer a variety of courses in the health careers cluster. The distribution of students in the many health training courses other than Practical Nursing is wise in view of the dim employment outlook in Practical Nursing for high school graduates.

The four schools that offer only Introduction to Health Careers need to make every effort to provide interested students with the opportunity to receive additional training in the health area via the Shared Instruction and the After School Occupational Skills Programs. Without this type of commitment, the value of offering an introductory course alone is questionable.

HOME ECONOMICS

Six occupational programs within the Home Economics cluster served 497 sutdents in the fall term of the 1978-79 school year. Three schools offered occupational education in Food Services. Together they served 69 students. E. Childs is the only Bronx high school offering Clothing Services and last year served 83 students. Child Care Services was offered at H. Lehman and AE Stevenson HS's, serving 345 students.

In the fall term of the 1978-79 school year, 1,096 students were enrolled in 5 pd/wk Home Economics courses in 10 Bronx high schools (see Table VII). These programs are not defined as occupational because they do not meet for a minimum of 10 pd/wk.

INDUSTRIAL ARTS

Industrial Arts facilities are available in Bronx high schools in a variety of course offerings including: electricity/electronics, graphic arts, mechanical drafting, metalworking, plastics, transportation, woodworking, driver education and photography.

While these facilities are found in many schools, most programs meet only 5 pds/ week. A handful meet the criteria for "occupational", defined as a course offered for 10+ pd/week. In the fall of the 78-79 school, three Bronx high schools offered "occupational" courses utilizing Industrial Arts facilities. The three schools, Herbert H. Lehman, Adlai E. Stevenson, and Harry S. Truman, together, served a total of 375 students in 10 pds/wk Industrial Arts programs.

Industrial Arts 5 Pds/Week

In addition to the 10pd/week "occupational" offerings, Industrial Arts facilities in four Bronx high schools provided instruction in a variety of subject areas for 5 pd/week to 6,161 students during the fall of 1978 (See Table VIII. While the principal purpose of these Industrial Arts programs is not to provide entry level skills, it must be noted that some are providing such skills to students who elect to take 3 or 4 terms of instruction in one subject area. In addition, a few of these 5 pd/week courses serve as prerequisites for more extensive training that is offered 10 pd/week.

Industrial Arts JHS

There are a total of 146 Industrial Arts facilities in 44 Bronx intermediate and junior high schools. As of March 1978, 40 of these facilities were not in use.

All the shop facilities in the intermediate and junior high schools need to be utilized if we are to be effective in providing experiences and disseminating information regarding possible future occupational training on the high school level. While these facilities are sometimes utilized in this role, much more could be achieved if centralized support were given.

The study of feeder patterns, the upgrading of select facilities, the co-ed programming of all JHS Industrial Arts programs and the preparation of information career and educational materials for distribution to interested students in appropriate subject areas are needed steps to improve the junior high school phase of the K-12 delivery system of occupational education.

INTERMEDIATE & JUNIOR HIGH SCHOOL INDUSTRIAL ARTS
Facilities in the Bronx

Metalworking	29	Career Guidance	1
Graphic Arts	37	Drafting	1
Ceramics	24	General Shop	1
Elect'y/Electronics	18	Aerospace	1
Crafts	2	General Industries	1
Woodworking	31		

TOTAL # of Facilities in 44 Schools	146
Number of Facilities not in Use as of 3/78	40

Driver Education

Driver education programs provide students with a skill that is often a prerequisite for employment, especially in service occupations.

In spite of the value of driver education, the program in our city's schools has steadily declined since 1975 when funding by the Federal Highway Safety Agency sources was terminated. At present much of the equipment (which has an estimated value of one million dollars of federal funds) is not in use.

The decline of the city-wide driver education effort is reflected in the decreased driver education enrollments in Bronx high schools from 1974 to 1978.

BRONX DRIVER EDUCATION ENROLLMENTS
Fall 1974 vs Fall 1973

	Enrollments Fall 1974	Enrollments Fall 1978
Evander Childs	170	0
Adlai Stevenson	220	120
Columbus	165	0
AE Smith	70	75
Taft	66	0

At present both Evander Childs and Columbus High Schools have driving simulation equipment that is not being utilized. (The equipment at Columbus is housed in a trailer in the school yard.) The value of this unutilized equipment is in excess of $100,000 and could be utilized to provide needed instruction at reduced per pupil cost.

Instructor costs could be further reduced by offering the 3-6 hours of in-car instruction with teachers paid on a per session basis. This would hold down teacher costs, while providing services to those students for whom a driver's license is a condition of employment.

TRADE/INDUSTRY

The 1,300 manufacturing firms located in the Bronx employ 110,000 workers. Public utilities and communications employ 22,500 workers, transportation 30,000 and repair services 30,000. Auto repair and related occupations employ approximately 2,000, and skilled craftsman account for 45,000 jobs in the Borough. Larger industrial employers are concentrated in the Hunt's Point district, (e.g., National Gypsum, Grand Iron Works, and American Banknote Company). The oldest industrial area, Port Morris/Bruckner Tier houses the 100 acre Harlem River Rail yards, the structural core of industrial redevelopment in the South Bronx.

Industrial Programs

Bronx high schools offered instruction in trade/industry subjects to 2,236 students during the fall 1978 school term. All of these students attended one

of the borough's four vocational high schools. Distribution of trade/industry students in Bronx high schools was as follows:

AE Smith	998
Jane Addams	243
S. Gompers	856
Grace H. Dodge	139
TOTAL	2,236

124 of the students receiving trade/industry instruction in the four vocational high schools attended via the Shared Instruction Program. Without this program these students would have been unable to receive such instruction.

While a fair variety of trade/industry courses are offered in the Bronx (14 of the 46 listed in the cluster) it must be noted that all are offered in the vocational high schools which for the most part are located in the South Bronx. Students attending academic/comprehensive high schools in other parts of the Borough have in fact little chance to receive instruction in the trade/industry subjects.

In order to expand course offerings and to provide opportunity to all students attending Bronx high schools it is necessary to expand and update existing programs and effectively utilize the potential of the Shared Instruction Program and fulfill the intent of the borough's comprehensive schools. (See Comprehensive High Schools)

TECHNICAL

291 students received instruction in technical subjects in Alfred E. Smith and Samuel Gompers Vocational High Schools. Technical enrollments in fall 1978 were 197 and 92 respectively. Only three of the 15 subjects listed in the Technical cluster were offered in Bronx high schools.

TABLE VII

HOME ECONOMICS ENROLLMENTS in the BRONX

(5 Periods/Week)

Course Offerings	MORRIS	H. LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	H.S. TRUMAN	SOUTH BRONX	J.F. KENNEDY	A.E. SMITH	JANE ADDAMS	S. GOMPERS	G.H. DODGE	AUX. SERVICES	TOTAL
Clothing 1		19			63	25	31	45				35		29						
2					19	75		7												
3																				
Total Clothing		19			82	100	31	52				35		29						348
Foods 1		29				52	77	44		55		62		52						
2						27	28	18												
Total Foods		29				79	105	62		55		62		52						444
Child Care 1		29					48					32								
2							39													
Total Child Care		29					87				120	32								268
Other:																				
Family Living 1	36																			
2																				
Total Family Living	36																			36
Needle Crafts																				
Home Nursing 1																				
2																				
Total Home Nursing																				
Bach. Survival																				
Health Care																				
Elem. Homemaking																				
Consumer Ed.																				
TOTAL 5Pd/Wk Home Econ.	36	77			82	179	223	114		55	120	129		81						1,096

TABLE VIII

INDUSTRIAL ARTS ENROLLMENTS in the BRONX
(5 Periods/Week)

Course Offerings	MORRIS	H. LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	H.S. TRUMAN	SOUTH BRONX	J.F. KENNEDY	A.E. SMITH	JANE ADDAMS	S. GOMPERS	G.H. DODGE	AUX. SERVICES	TOTAL
Aerospace 1																				
2																				
Total Aerospace																				
Drafting 1			54			69		35			29	29		29						
2						19								39						
3																				
4																				
Total Drafting			54			88		35		1065	29	29		68						1,368
Driver Education											120				75					195
Elect'y/onics 1		33	18		67			55				68		67						
2					36			14												
3																				
4																				
Total Elect'y/onics		33	18		103			69				68		67						358
Graphic Arts 1		24											74	32						
2																				
3																				
4																				
Total Graphic Arts		24											74	32						130
Industrial Careers																				
Industrial Ceramics 1				71			58													
2							57													
Total Ceramics				71			115													186
Jewelry 1		56						27	60		57	46		31						
2		32									27									
Total Jewelry		88						27	60		84	46		31						336

TABLE VIII

INDUSTRIAL ARTS ENROLLMENTS in the BRONX

(5 Periods/Week)

Course Offerings	MORRIS	H. LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	H.S. TRUMAN	SOUTH BRONX	J.F. KENNEDY	A.E. SMITH	JANE ADDAMS	S. GOMPERS	G.H. DODGE	AUX. SERVICES	TOTAL
Marine Tech. 1																				
2																				
Total Marine Tech.																				
Metalworking 1			56	32	78	90		51	98											
2				16	42			15	20											
3																				
4																				
Total Metalworking			56	48	120	90		66	118											498
Multi-Media																				
Photography 1		20						152			27									
2		17									50									
Total Photography		37	26					152			77									292
Plastics 1																				
2																				
Total Plastics																				
Transportation 1						114		83				67								
2								21												
3																				
4																				
Total Transportation						114		104				67								285
Small Engine Repair 1			27					83												
2								21												
Total Small Engine Rpr.			27					104												131
Woodworking 1		31	223	91	127	128		93	238			103		60						
2				76				21	29											
3				35								19								
4																				
Total Woodworking		31	223	202	127	128		114	267			122		60						1,274

TABLE VIII

INDUSTRIAL ARTS ENROLLMENTS in the BRONX
(5 Periods/Week)

Course Offerings	MORRIS	H. LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	H.S. TRUMAN	SOUTH BRONX	J.F. KENNEDY	A.E. SMITH	JANE ADDAMS	S. GOMPERS	G.H. DODGE	ADX. SERVICES	TOTAL
Other:																				
Career Exploration											32									32
Auto Machines I				105					105		83			115						408
Auto Machines II				28					15											43
Science Shop										404										404
Home Repair								17	98					29						144
Blue Print Reading																				
Comprehensive						77														77
TOTAL I.A. 5 Pd/Wk.		213	404	454	350	497	115	688	663	1469	425	332	74	402	75					6,161

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

AGRICULTURE	MORRIS	HERBERT LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	HARRY S. TRUMAN	SOUTH BRONX	J.F. KENNEDY
9th Year Explor. or Pre-Voc.														
Agric. Prod./Farm Mgt.														
Animal Care					94				90					
Conservation														
Oceanography														
Ornamental Horticulture					80				28	76				
Other														
TOTALS					174				118	76				
BUSINESS & DISTRIBUTIVE ED.														
Business & Office Courses														
Exploratory			87			152	147		61			33		93
Pre-Vocational (Required)	862	228	556						14			608		29
Bookkeeping & Accounting	173	205	236	158	516	637	558		740		125	90		636
Data Processing	30	26	26	135								190		
Gen. Office/Clerical/Typewriting		597	696	1044	448	652	854		325		150	320		613
Information Communications														
Materials Supporting (Transporting, Storing, Recording)											33			
Stenographic, Secretarial	392	213	84	174	58	156	147				100	186		88
Supervisory & Administrative Mgt.														
Pre-Technical														
Office Related Technology			91			34								
Other														
TOTAL	1457	1269	1776	1511	1022	1631	1706		1140		408	1427		1459
	(830)	(720)	(1050)	(860)	(580)	(1000)	(1040)		(680)		(230)	(830)		(870)
Distributive Ed. Courses														
Exploratory														
Pre-Vocational (Required)														
Advertising Services														
Apparel & Accessories														
Auto/Petroleum/Serv. Station Mgt.														
Finance & Credit														
Food Distrib./Supermarket Mgt.											110			
Gen. Merch./Gen. Sales														
Hardware, Materials, Supplies														

TABLE IX

BRONX

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

BUSINESS & DISTRIBUTIVE ED. (Cont'd)	MORRIS	HERBERT LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	HARRY S. TRUMAN	SOUTH BRONX	J.F. KENNEDY
Distributive Ed. Courses (Cont'd)														
Home Furnishings (Sales)														
Hotel & Lodging														
Insurance														
Real Estate														
Recreation & Tourism														
Transportation & Services														
Pre-Technical														
Other														131
TOTAL											110			131
											(60)			(70)
TOTAL BUSINESS & DISTRIBUTIVE ED.	1457	1269	1776	1511	1022	1631	1706		1140		518	1427		1590
	(830)	(720)	(1050)	(860)	(580)	(1000)	(1040)		(680)		(290)	(830)		(940)
HEALTH CAREERS														
9th Year or Exploratory		95												
Intro. to Health Careers	75	50	11		51	104	60	75	50		71		35	112
Med. or Bio. Lab Tech								70						
Dental Assistant														50
Dental Lab Assistant														
Dental Office Practices														
Health Assistant/Health Service			15		44	32			100					39
Health Careers for the Handicapped														
Medical Lab Assistant														17
Medical Office Practices			57											
Nurse Assistant			164											
Practical Nurse														
Other		6	27											
TOTAL	75	151	274		95	136	60	145	150		71		35	218
HOME ECONOMICS														
HEOE Food Services						27	17				25			
HEOE Clothing Services						83								
HEOE Child Care Services		33									312			
Other														
TOTAL		33				110	17				337			

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

	MORRIS	HERBERT LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	HARRY S. TRUMAN	SOUTH BRONX	J.F. KENNEDY
INDUSTRIAL ARTS														
Aerospace														
Drafting		30												
Driver Education														
Electricity/Electronics												26		
Graphic Arts		20										28		
Industrial Careers											50			
Industrial Ceramics														
Jewelry														
Marine Technology														
Metalworking											28			
Multi-Media														
Photography														
Plastics														
Transportation		47									86			
Small Engine Repair														
Woodworking		60												
Other														
TOTAL		157									164	54		
TECHNICAL														
9th Year Exploratory or Pre-Voc.														
Aviation: Aeronautics Tech.														
Draft'g/Drw'g: Architectural														
Draft'g/Draw'g: Elec. or Mech.														
Chemical Tech (Indus. Chem)														
Civil Tech (Struc. Des.)														
Elect'y/onics: Communications														
Elect'y/onics: Computer Tech.														
Elect'y/onics: Elect'y/onics														
Fashion: Fashion Design Tech.														
Industrial Design														
Instrumentation Design														
Machine Design														
Pre-Technical Engineering														
Other														
TOTAL														

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

TRADE/INDUSTRY	MORRIS	HERBERT LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	HARRY S. TRUMAN	SOUTH BRONX	J.F. KENNEDY
9th Year Exploratory or Pre-Voc.														
Auto.: Automotive Body														
Auto.: Automotive Mech.														
Auto.: Service Stat. Attend't														
Aviation: Aviation Mechanics														
Aviation: Ground Suppt. Veh. Maint.														
Bldg/Constr: Cabinet Making														
Bldg/Constr: Carpentry														
Bldg/Constr: Plumbing														
Bldg/Constr: Woodworking														
Clock and Watch Mech.														
Commercial Art														
Commercial Photography														
Cosmetology														
Dental Lab Processing														
Elect'y/onics: Elec. Instal & Prac.														
Elect'y/onics: Radio Electr. Mech.														
Elect'y/onics: Radio & TV Mech.														
Elect'y/onics: TV Broadcasting														
Electro-Mech: Appl/Equip. Rpr.														
Electro-Mech: Bus. Machine Rpr.														
Envir. Contr.: Automatic Heating														
Envir. Contr.: Climate Control														
Envir. Contr.: Comm/Domest. Refrig.														
Fashion: Costume Des/Illus/Drap'g														
Fashion: Fashion Design (Voc)														
Fashion: Fashion Merchandising														
Fashion: Fur Mfr.														
Fashion: Men's Clothing Mfr.														
Fashion: Textile Des.& Weaving														
Fashion: Women's Apparel Mfr.														
Food: Baking														
Food: Cafeteria & Catering														
Food: Meat Merchandising														

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

	MORRIS	HERBERT LEHMAN	W.H. TAFT	C. COLUMBUS	J. MONROE	E. CHILDS	WALTON	T. ROOSEVELT	DEWITT CLINTON	SCIENCE	A. STEVENSON	HARRY S. TRUMAN	SOUTH BRONX	J.F. KENNEDY
TRADE/INDUSTRY (Cont'd)														
Graphic Arts & Communication														
Interior Decoration														
Jewelry Design & Mfr.														
Mach/Metal: Machine Shop Prac.														
Mach/Metal: Sheet Metal														
Marine Occupations														
Media/TV Production														
Optical Mechanics														
Printing Trades														
Sculpture & Stone Carving														
Upholstery														
Other														
TOTAL														
GRAND TOTALS	905	1061	1324	860	849	1246	1117	145	948	76	862	884	35	1158

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

AGRICULTURE	A. E. SMITH	J. ADDAMS	S. GOMPERS	G. DODGE	AUX. SERVICES	
9th Year Explor. or Pre-Voc.						
Agric. Prod./Farm Mgt.						
Animal Care						184
Conservation						
Oceanography						
Ornamental Horticulture						184
Other						
TOTALS						368
BUSINESS & DISTRIBUTIVE ED.						
Business & Office Courses						
Exploratory				195		768
Pre-Vocational (Required)						2,297
Bookkeeping & Accounting		643		336		5,053
Data Processing						407
Gen. Office/Clerical/Typewriting				1091		6,790
Information Communications						
Materials Supporting (Transporting, Storing, Recording)						33
Stenographic, Secretarial		223		658		2,479
Supervisory & Administrative Mgt.						
Pre-Technical						
Office Related Technology		71		220		416
Other						
TOTAL		937		2500		18,243
Distributive Ed. Courses						
Exploratory						
Pre-Vocational (Required)						
Advertising Services						
Apparel & Accessories				27		27
Auto/Petroleum/Serv. Station Mgt.						
Finance & Credit						
Food Distrib./Supermarket Mgt.						
Gen. Merch./Gen. Sales		22		121		253
Hardware, Materials, Supplies						

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

	A.E. SMITH	J. ADDAMS	S. COMPERS	G. DODGE	AUX. SERVICES	
BUSINESS & DISTRIBUTIVE ED. (Cont'd)						
Distributive Ed. Courses (Cont'd)						
Home Furnishings (Sales)						
Motel & Lodgings						
Insurance						
Real Estate						
Recreation & Tourism						
Transportation & Services						
Pre-Technical						
Other				74		205
TOTAL		22		222		485
TOTAL BUSINESS & DISTRIBUTIVE ED.		959 (360)		2722 (1430)		18,728 (10,610)
HEALTH CAREERS						
9th Year or Exploratory				98		193
Intro. to Health Careers				80	70	844
Med. or Bio. Lab Tech					40	110
Dental Assistant						50
Dental Lab Assistant						
Dental Office Practices						
Health Assistant/Health Service		378				608
Health Careers for the Handicapped						
Medical Lab Assistant				82		99
Medical Office Practices		52				109
Nurse Assistant						164
Practical Nurse		58		68		126
Other						33
TOTAL		488		328	110	2,336
HOME ECONOMICS						
HECE Food Services						69
HECE Clothing Services						83
HECE Child Care Services						345
Other						
TOTAL						497

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

	A.E. SMITH	J. ADDAMS	S. GOMPERS	G. DODGE	AUX. SERVICES	
INDUSTRIAL ARTS						
Aerospace						
Drafting						30
Driver Education						
Electricity/Electronics						26
Graphic Arts						48
Industrial Careers						50
Industrial Ceramics						
Jewelry						
Marine Technology						
Metalworking						28
Multi-Media						
Photography						
Plastics						
Transportation						133
Small Engine Repair						
Woodworking						60
Other						
TOTAL						375
TECHNICAL						
9th Year Exploratory or Pre-Voc.						
Aviation: Aeronautics Tech.						
Draft'g/Drw'g: Architectural	95					95
Draft'g/Draw'g: Elec. or Mech.	104		25			129
Chemical Tech (Indus. Chem)						
Civil Tech (Struc. Des.)						
Elect'y/onics: Communications						
Elect'y/onics: Computer Tech.						
Elect'y/onics: Elect'y/onics			67			67
Fashion: Fashion Design Tech.						
Industrial Design						
Instrumentation Design						
Machine Design						
Pre-Technical Engineering						
Other						
TOTAL	199		92			291

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

TRADE/INDUSTRY	A.E. SMITH	J. ADDAMS	S. GOMPERS	G. DODGE	AUX. SERVICES	
9th Year Exploratory or Pre-Voc.	391	399		30		820
Auto.: Automotive Body	53					53
Auto.: Automotive Mech.	562					562
Auto.: Service Stat. Attend't						
Aviation: Aviation Mechanics						
Aviation: Ground Suppt. Veh. Maint.						
Bldg/Constr: Cabinet Making						
Bldg/Constr: Carpentry	236					236
Bldg/Constr: Plumbing	71					71
Bldg/Constr: Woodworking						
Clock and Watch Mech.						
Commercial Art						
Commercial Photography				64		64
Cosmetology		228		75		303
Dental Lab Processing						
Elect'y/onics: Elec. Instal & Prac.			316			316
Elect'y/onics: Radio Electr. Mech.						
Elect'y/onics: Radio & TV Mech.			327			327
Elect'y/onics: TV Broadcasting						
Electro-Mech: Appl/Equip. Rpr.						
Electro-Mech: Bus. Machine Rpr.			57			57
Envir. Contr.: Automatic Heating						
Envir. Contr.: Climate Control	76					76
Envir. Contr.: Comm/Domest. Refrig.						
Fashion: Costume Des/Illus/Drap'g						
Fashion: Fashion Design (Voc)						
Fashion: Fashion Merchandising						
Fashion: Fur Mfr.						
Fashion: Men's Clothing Mfr.						
Fashion: Textile Des.& Weaving						
Fashion: Women's Apparel Mfr.		15				15
Food: Baking						
Food: Cafeteria & Catering						
Food: Meat Merchandising						

Occupational Enrollments in Bronx High Schools
(By Course/School)
Oct. 1978

TABLE IX

BRONX

	A.E. SMITH	J. ADDAMS	S. CONYERS	G. DODGE	AUX. SERVICES	
TRADE/INDUSTRY (Cont'd)						
Graphic Arts & Communication			69			69
Interior Decoration						
Jewelry Design & Mfr.						
Mach/Metal: Machine Shop Prac.			37			37
Mach/Metal: Sheet Metal						
Marine Occupations						
Media/TV Production						
Optical Mechanics						
Printing Trades			50			50
Sculpture & Stone Carving						
Upholstery						
Other						
TOTAL	1389	642	856	169		3,056
GRAND TOTALS	1588	1490	948	1927	110	17,533

REFERENCES AND SOURCERS OF INFORMATION

- Bronx Overall Economic Development Council
- School Profiles; New York City Board of Education 1976-1977
- Form 11: Analysis of School Organization Register By Courses and Terms, CCOE, New York City Board of Education
- Annual School Census - October 1977; October 1978
- Pupil Ethnic Composition Report; Office of Educational Statistics, New York City Board of Education
- Transportation Information; New York City Transit Authority
- Comprehensive Occupational Education System August 30, 1977; New York City Board of Education

Information was supplied through the cooperation of the following Offices:

After School Occupational Skills Program

Shared Instruction Program

Home Economics

Industrial Arts

Trade and Technical

Health Careers

Business and Distributive Education